

IUBMB Enzyme Nomenclature

EC 3.4.21.62

Common name: subtilisin

Reaction: Hydrolysis of proteins with broad specificity for peptide bonds, and a preference for a large uncharged residue in P1. Hydrolyses peptide amides

Other names: alcalase; alcalase 0.6L; alcalase 2.5L; ALK-enzyme; bacillopeptidase A; bacillopeptidase B; *Bacillus subtilis* alkaline proteinase biopraser; biopraser AL 15; biopraser APL 30; colistinase; (see also comments); subtilisin J; subtilisin S41; subtilisin Sendai; subtilisin GX; subtilisin E; subtilisin BL; genenase I; esperase; maxatase; alcalase; thermoase PC 10; protease XXVII; thermoase; superase; subtilisin DY; subtilopeptidase; SP 266; savinase 8.0L; savinase 4.0T; kazusase; protease VIII; opticlean; *Bacillus subtilis* alkaline proteinase; protin A 3L; savinase; savinase 16.0L; savinase 32.0 L EX; orientase 10B; protease S

Comments: Subtilisin is a serine endopeptidase, type example of peptidase family S8. It contains no cysteine residues (although these are found in homologous enzymes). Species variants include subtilisin BPN' (also subtilisin B, subtilopeptidase B, subtilopeptidase C, Nagarse, Nagarse proteinase, subtilisin Novo, bacterial proteinase Novo) and subtilisin Carlsberg (subtilisin A, subtilopeptidase A, alcalase Novo). Formerly EC 3.4.4.16 and included in EC 3.4.21.14. Similar enzymes are produced by various *Bacillus subtilis* strains and other *Bacillus* species [1,3]

Links to other databases: [BRENDA](#), [EXPASY](#), [MEROPS](#), CAS registry number: 9014-01-1

References

1 1 SAVINASE/CN

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L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 9014-01-1 REGISTRY

CN Subtilisin (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Alcalase

CN Alcalase 0.6L

CN Alcalase 2.0M

CN Alcalase 2.4L

CN Alcalase 2.5L

CN Alcalase 6.0T

CN ALK-enzyme

CN APB-72

CN Bacillopeptidase A

CN Bacillopeptidase B

CN Bacillus subtilis alkaline proteinase

CN Bacillus subtilis Alkaline proteinase

CN Bioblase SP-15 FG

CN Biopraser

CN Biopraser 30G

CN Biopraser AL 15

CN Biopraser APL 30

CN Biopraser Conc

CN Biopraser PN 4

CN Biopraser SP

CN Biopraser SP 10

CN Biopraser SP 20

CN Biopraser SP 4

CN BLAP 260

CN BLAP S

CN Chirazyme P 1

CN ChiroCLEC CRO

CN ChiroCLEC-BL

CN Colistinase

CN Dafazyme PR B

CN E.C. 3.4.21.14

CN E.C. 3.4.21.62

CN E.C. 3.4.4.16

CN Esperase

CN Esperase 8.0

CN Esperase 8.0L

CN Evertase 24 LDP

CN Extretex

CN Genenase

CN Genenase I

CN Kannase

CN Kazusase

CN M-Protease

CN Maxacal

CN Maxacal CX600K

CN Maxacal L

CN Maxatase

CN Nagarse

CN Necrolytin G

CN Novolan T

CN **Savinase**

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
DISPLAY

DR 12626-20-9, 12770-87-5, 9028-05-1, 9031-73-6, 9045-36-7, 9063-47-2,
9067-41-8, 2392-42-9, 148093-32-7, 179530-31-5, 196414-34-3

MF Unspecified

CI COM, MAN
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO,
CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX,
CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT,
IFIUDB, IPA, MSDS-OHS, NAPRALERT, NIOSHTIC, PROMT, RTECS*, TOXCENTER,
ULIDAT, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
5785 REFERENCES IN FILE CA (1957 TO DATE)
346 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5800 REFERENCES IN FILE CAPLUS (1957 TO DATE)